

-14-

What is claimed is:

1. A method of determining at a base station an estimate of the maximum available uplink transmit power of a subscriber station having a radio including foldback circuitry and maintaining that estimate at said base station, said method comprising:
  - transmitting a message from said subscriber station to said base station whenever an incident of foldback occurs at said subscriber station;
  - decreasing the maintained estimate of said maximum uplink transmit power of said subscriber station at said base station when said base station receives said message from said subscriber station; and
  - increasing said maintained estimate at said base station when a predefined period of time has lapsed after said base station received said message.
2. The method of claim 1, wherein said base station increases said maintained estimate in increments of 1 dBm.
3. The method of claim 1, wherein said base station decreases said maintained estimate in increments of 1 dBm.
4. The method of claim 1, wherein said predetermined length of time is 30 minutes.
5. The method of claim 1, wherein said incident of foldback includes said radio experiencing a preselected number of consecutive frames.
6. The method of claim 1, wherein said incident of foldback includes said subscriber having a foldback duty cycle of more than 10% over a predetermined period of time.
7. The method of claim 1 wherein said message includes an indication of the degree of foldback imposed at said subscriber station and said base station decreases said maintained estimate

-15-

proportionally to the degree of foldback.

8. A system for transmitting data comprising:  
a plurality of subscriber stations each operable to transmit a message indicating an incident of foldback in said subscriber station; and  
a base station operable to maintain an estimate of the maximum available uplink transmit power for each said subscriber station and to receive any said messages from said plurality of subscriber stations and to reduce said maintained estimate for each said subscriber station which has sent any said message.
9. The system of claim 8, wherein said base station adjusts the maximum uplink transmit power in increments of 1 dBm.
10. The system of claim 8, wherein said base station increases the maximum uplink transmit power of after a predetermined period of time has lapsed since receiving said message indicating any incidents of foldback in said radio.
11. The system of claim 10, wherein said predetermined period of time is 30 minutes.
12. The system of claim 8, wherein said incident of foldback includes said radio experiencing foldback over a preselected number of consecutive frames.
13. The system of claim 8, wherein said incident of foldback includes said subscriber having a foldback duty cycle of more than a predetermined amount.
14. The system of claim 8, wherein said base station adjusts said maximum uplink transmit power of said each subscriber station in accordance with the method described in claim 1.
15. A system for transmitting data comprising:

-16-

at least one subscriber station operable to transmit data at a plurality of different data rates, said at least one subscriber station further operable to transmit a message indicating an incident of foldback in said at least one subscriber station; and

a base station operable, upon receiving said message, to reduce the data rate for said at least one subscriber station.

16. A subscriber station having a radio including foldback circuitry and operable to transmit a message indicating any incidents of foldback in said radio to a base station.

17. The subscriber station of claim 16, wherein an incident of foldback includes said radio experiencing foldback over a predefined number of consecutive frames.

18. The subscriber station of claim 16, wherein said incident of foldback includes said subscriber having a foldback duty cycle of more than a predetermined amount.

19. A subscriber station having a radio with foldback circuitry, said subscriber station operable to transmit data at a plurality of different data rates, and said subscriber station further operable to transmit data at a lower data rate from said plurality of different data rates after experiencing foldback in said foldback circuitry.

20. A base station operable to receive messages from a remote subscriber station and further operable to adjust an estimate of the maximum available uplink transmit power maintained for said subscriber station upon receiving a message indicating an incident of foldback in the radio of said subscriber station.

21. The base station of claim 20, wherein said base station adjusts the estimate of maximum available uplink transmit power in increments of 1 dB.

22. The base station of claim 21, wherein said base station increases the estimate of maximum

-17-

available uplink transmit power of said subscriber station after a predetermined period of time has lapsed since receiving a message indicating any incidents of foldback in said subscriber station.

23. The base station of claim 22, wherein said predetermined period of time is 30 minutes.

24. The base station of claim 20, wherein said base station adjusts said maximum available uplink transmit power of said subscriber station in accordance with the method described in claim 1.

25. A base station operable to reduce the data rate of a subscriber station, upon receiving a message from said subscriber station indicating an incident of foldback in the radio of said subscriber station.